



COLORADO

Department of Transportation

Office of the Chief Engineer

Chief Engineer/Director of Stormwater Compliance
4201 E. Arkansas Ave.
Denver, CO 80222-3400

May 5, 2017

U.S. EPA Region 8 NPDES Enforcement
Unit 1595 Wynkoop Street
Denver, Colorado 80202-1129
Attn: Stephanie DeJong (8ENF-W-NP)

Dear Ms. DeJong:

Please find attached, CDOT's fourth submittal in response to the audit of our Municipal Separate Storm Sewer System (MS4) permit, number COS000005.

CDOT continues to make significant progress with resolving the alleged corrective actions and recommendations identified in the audit report dated November 5, 2015. The attached submittal includes input from our Audit Division and provides an update on our progress. We have an updated summary table of Findings/Recommendations.

If you have any questions, comments, or additional requests, please contact Jane Hann at 303-757-9630 or jane.hann@state.co.us.

Sincerely,

Joshua Laipply, P.E.

Chief Engineer/Director of Stormwater Compliance

Attachments

CC: Nathan Moore, CDPHE
Lisa Knerr, CDPHE
Debra Perkins-Smith, CDOT
Jane Hann, CDOT
Rick Willard, CDOT
Jim Ballard, Audit Division, CDOT
Jean Cordova, CDOT/CDPHE
Stephanie Gibson, FHWA



**Table 1: Summary of EPA Finding/Recommendations –
Current CDOT Actions Status**

CDOT has completed 14 of the 18 findings with corrective actions and recommendations; the remaining 4 findings are 80-98% complete.

<p align="center">EPA Finding Number (Field Visit March 30 – April 2, 2015) (EPA Finding Report: Sept 30 2015 initial draft, Nov 5, 2015 revised)</p>	<p align="center">CDOT Actions Completed May 9, 2017</p>
<p><i>Program Management – PM</i></p>	
<p>1PM – The MS4 program appeared to lack adequate resources and equipment for Maintenance and Regional staff to maintain permanent water quality features (PWQFs) and conduct future Pollution Prevention inspections at maintenance facilities.</p> <p>Corrective Action: Conduct a review of stormwater management program resources and provide 1) the stormwater management program resources review, 2) what additional resources, if any, are needed with a timeframe for obtaining them, and 3) a plan to ensure adequate resources are provided in the future for both personnel and equipment.</p>	<p>Status: 80% Complete</p> <p><u>Actions:</u> The stormwater management program resource assessments are in various stages of development. Specifically:</p> <ul style="list-style-type: none"> • <u>Program Management Resource Assessment Complete and Additional Resource Acquired</u>: CDOT requested additional resources in 2015 and these were approved by the Transportation Commission for an addition of \$900,000 (over a 2-year period) in 2016/2017 to be added to the annual budget of \$600,000/yr to develop and implement program changes required by the EPA Audit Findings and by CDOT’s new August 2015 MS4 Permit requirements. The program changes included: <ol style="list-style-type: none"> 1. New Development/Redevelopment Program: Updating the PWQF inventory and processes for evaluating the resource assessment costs for PWQF maintenance. They also included developing a plan for collecting real-time data of PWQF maintenance work order efforts <u>so that adequate budget and resources could be set in future years</u> for continued annual maintenance. 2. Pollution Prevention/Good Housekeeping: The funds also were used for conducting inspections at maintenance facilities, conducting trainings at these facilities and at the Maintenance Training Academy (MTA) that included Pollution Prevention and Good Housekeeping and for a needed repair to a facility to keep it in compliance with the MS4 requirements. 3. Construction Sites Program: A complete revision of the MS4 Construction Sites Program was conducted to address the numerous findings and to achieve statewide consistency was conducted using these funds. This included revising the 208.09 Specification 09 (Failure to Perform Erosion Control), to address the

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	<p>EPA Finding regarding ensuring better compliance enforcement on construction projects.</p> <ol style="list-style-type: none"> 4. Other Programs including Wet Weather Monitoring, Public Education and Outreach, Industrial Facilities, and Illicit Discharge Elimination Programs used these funds to revise and publish Program Description Documents to provide guidance on how these programs work. 5. Trainings – New trainings are under development using these funds including an overall MS4 Program Training and Stormwater Management Plan (SWMP) preparer and reviewer classes to improve our SWMPs on projects. <ul style="list-style-type: none"> • <u>Stormwater Management Program Resources Initial Review Completed</u>: The program implementation resource initial assessment has been completed that includes stormwater program and Permanent Water Quality (PWQ) maintenance support (also covered in 4ND) for each of the 5 regions and HQ for improving and implementing the program in the future. This detailed assessment included: <ol style="list-style-type: none"> 1. Collecting information on current staffing levels, equipment, tasks, roles and responsibilities, contractor/consultant current funding levels of support, 2. Compared current resource levels with efforts should be done better, and improved strategies on: <ol style="list-style-type: none"> a. how HQ could support the program more effectively with changes in roles and responsibilities, b. new requirements such as additional training and processes, and c. changes in the transportation program as a whole regarding alternative project delivery methods, increases in number of projects going to construction, and technological innovations being embraced by the department. 3. There are also a few innovative process improvement items with even more additional funding acquired including:

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	<ul style="list-style-type: none"> a. developing the Linear Asset Management System that schedules PWQF maintenance tasks through maintenance work orders, tracks actual costs of maintenance on PWQFs, and provides a reporting function; b. a pilot project testing the use of solar power to clean floor drain water to just about distilled levels prior to discharging it. <p><u>Next Steps:</u> 2) <u>What additional resources, if any, are needed with a timeframe for obtaining them.</u> This resource assessment proposal still needs to be reviewed by the regions and submitted to CDOT Executive Management regarding input on what combination of staffing increases, staffing reassignments and strategies, equipment needs, and contractor/consultant funding should be brought to the Transportation Commission for a workshop and subsequent approval. May 2017</p> <ul style="list-style-type: none"> a. Discuss resource assessment with RTDs. Draft Strategy/Plan for providing needed resources completed; this is where additional <u>funding, added personnel, and equipment needs</u> are discussed. b. Review and refinement of strategies. <p>June 2017 – Take this plan to the Transportation Commission for a workshop 3) Then take the final proposal to Transportation Commission for funding approval – include <u>any future funding commitments needed to ensure adequate resources are provided in the future.</u></p>
<p>2PM – CDOT Headquarters and Regional staff are not consistently aware of the requirements in the Stormwater Management Programs, and the Stormwater Management Programs are not being consistently implemented.</p>	<p>Status: 98% Complete</p> <p><u>Actions:</u> <u>Completed:</u> 1) A plan for formal MS4 Program training was submitted to EPA and CDPHE on November 22, 2016 regarding how CDOT intends to approach <u>training</u> development.</p>

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<p>Corrective Action: In addition to corrective actions in 4PM, 2CS, 3CS, and 1ND, ensure that <u>CDOT</u> HQ and regional staff are <u>trained</u> on the requirements of the MS4 permit and associated CDOT programs. Ensure staff <u>implement</u> these programs and provide EPA and CDPHE a <u>summary</u> of how CDOT plans to accomplish this.</p> <p>Recommended Action: CDOT to develop a <u>self-audit and corrective actions program</u> to ensure this program is consistently implemented through the regions.</p>	<p>This included Training Program guidelines, a training gap analysis to identify training needs, a planned CDOT MS4 and water quality training curriculum, and Standard Operating Procedures for training development. Training is not just in the form of formal classes though, and item number 2 below outlines other training and communication outreach that has occurred regarding MS4 programs contained in the MS4 Permit. Current formal existing and updated trainings include:</p> <ul style="list-style-type: none"> • Transportation Erosion Control Supervisor Certification classes updated for CDOT construction sites that provides MS4 Regulatory Authority (208.09) training to CDOT staff, and stormwater construction permit training in compliance with CDOT’s specifications for contractors • Best Management Practices Selection <p>2) <u>Additional Trainings/Communication:</u> Additional formal trainings, numerous new and ongoing trainings and other <u>outreach</u> events regarding the MS4 Programs which incorporate the new changes within the new MS4 Permit’s compliance schedule are being delivered. These include:</p> <ul style="list-style-type: none"> • presenting at the Environmental and Transportation Professionals Training that took place February 28/March 1, 2017 for many CDOT Engineering, Maintenance, and Environmental staff, as well as contractors, consultants, and local agencies, • trainings for CDOT Maintenance personnel during Pollution Prevention and Good Housekeeping inspections, • trainings for local agency partners regarding the new Permanent Water Quality Mitigation fund call for projects, • MS4 Permit and EPA Audit requirements presentations to the CDOT resident and program engineers, • the CDOT Project Design Advisory Committee for both changes to specifications and for stormwater programs changes occurring to meet MS4 Permit requirements and EPA Audit findings,

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	<ul style="list-style-type: none"> • the CDOT Water Quality Advisory Committee to educate these CDOT engineers and water quality staff regarding changes occurring to meet MS4 Permit requirements and EPA Audit findings, • the CDOT Regional Water Quality professionals meeting, regarding changes occurring to meet MS4 Permit requirements and EPA Audit findings, • the CDOT Regional Planning and Environmental Managers and their staff, regarding changes occurring to meet MS4 Permit requirements and EPA Audit findings, • through CDOT’s Change Agent Network that includes representatives from all the DOT and HQ Divisions regarding recent changes that affected CDOT staff should be aware of, and where to find more information about these changes, • the CDOT Director of Stormwater Compliance, including quarterly updates on the MS4 Construction Program, and other CDOT Executive Management Team staff when decisions regarding MS4 Program changes need support and approval from that level, • CDOT landscape architects and the CDOT and consultant developers of the Stormwater Management Plan Preparation classes so that those classes reflect the most recent requirements of the MS4 Permit and address EPA Audit corrective actions and recommendations, • Maintenance staff at the CDOT Maintenance Training Academy for an overview of stormwater requirements, illicit discharge responsibilities, pollution prevention and good housekeeping items, and maintenance expectations and documentation procedures for keeping permanent water quality facilities (PWQF) operational, and • MS4 Construction Program Manual, and other MS4 Program guidance was made available March 1, 2017, and was announced at many of these meetings, sometimes month after month: the MS4 Construction Program Manual is a big change that outlines a new uniform programmatic approach for CDOT staff to ensure statewide consistency.

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	<p>3) <u>Regarding Program Implementation</u>: All MS4 Permit programs have either Program Description Documents, or other guidance regarding how to implement these programs, available. CDOT is creating awareness through trainings that have been developed; other trainings are under development, but all programs have one-on-one program support by the assigned program manager. The MS4 Permit annual report is a good self-audit check for whether these programs are being implemented as expected by the MS4 Permit. As of the 2016 annual report, all programs met the minimum requirement, including the PWQF that had been inspected and maintained – CDOT’s MS4 Permit requires inspection and maintenance on these PWQFs once for every permit term (5-years) and we are on track to accomplish this. Additionally, CDOT is working with CDOT’s independent Audit Division to have a 3rd party audit of different parts of the MS4 Permit programs as an additional check for proper implementation of this program.</p> <p>4) <u>Self-Audit</u>: The MS4 Programs has numerous <u>corrective-action</u> checks and balances built in to ensure that each program is <u>implemented</u> as intended.</p> <p>a) <u>Program Management</u>: The MS4 annual report requires tracking and reporting of these programs; the use of CDOT’s internal SAP system that tracks many items, including financial; the various Program Description Documents (PDDs) required by our new MS4 permit, has implementation requirements and each program is assigned a program manager to make sure the program elements are being followed.</p> <p>b) <u>Training Program</u>: The Learning Management System tracks classes attended, and tracks mandatory classes not yet attended by required staff. These accomplishments and training gaps will be inspected during the preparation of the annual report.</p> <p>c) <u>Permanent Water Quality (PWQ) Program</u>: SAP is tracking the financials regarding the PWQ Mitigation Fund. Additionally, a 3rd party audit has been requested for the 2017 construction season to ensure <u>PWQ Mitigation Fund</u></p>

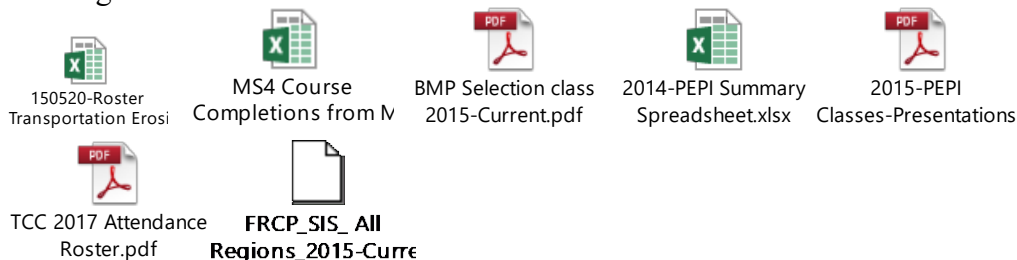
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	<p><u>projects are properly using and tracking their expenditures.</u> Soon SAP will track maintenance work orders for work on permanent water quality facilities.</p> <p>d) <u>Construction Sites Program:</u> The MS4 Construction [sites] Manual, describes a consistent implementation of this program <u>across the regions.</u> The MS4 Construction [sites] Manual includes a <u>4 tier approach to self-auditing</u> program performance, some involving HQ staff, and one involving <u>3rd party audits.</u> This tracking is supplemented with CDOT’s MS4 construction inspection electronic tracking system, ESCAN, which can help monitor performance by projects, and the escalation process <u>implementation</u> that is required by this program for findings left unaddressed after 48 hours. Oversight for components of the Construction Sites Program will be provided by HQ water quality staff and as captured and evaluated in ESCAN; some of this data is formally reported and reviewed on a quarterly basis by CDOT’s executive management.</p> <p>e) <u>Wet Weather Monitoring:</u> There is an annual requirement to submit the testing results to the EPA website. This program performance accomplished out of HQ is overseen by the Water Quality Section Manager.</p> <p>f) <u>Pollution Prevention and Good Housekeeping:</u> Monthly inspections are tracked by the Maintenance Facility personnel, but HQ visits every Maintenance Facility each year for a Facility Runoff Control Plan inspection as required by CDOT’s MS4 Permit. These results are given to the maintenance superintendent of that region for implementation; escalation processes are in place for findings left unaddressed.</p> <p>g) <u>Public Education and Outreach:</u> This is conducted by HQ and is reported in the annual report. CDOT always easily out-performs the expectations of this program and reports this accomplishment in the annual report.</p> <p>h) <u>Illicit Discharge Program:</u> The PDD outlines the requirements for identifying, and tracking these ID findings. These findings are tracked by the ID Program Manager. Training and awareness of illicit discharges is given in the regions,</p>

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	<p>but the main handling and follow-up is by the HQ ID Program Manager – this program’s accomplishments are tracked in the annual report.</p> <p>i) <u>Industrial Facilities Program</u>: This is a very small program for CDOT, and is run out of HQ and tracked in the annual report.</p> <p><u>Next Steps</u>:</p> <p>Roll out the Formal CDOT MS4 Programmatic Training - The development of this training will be complete by June 30, 2017 and ready to roll out in July. This training will be an overview of the entire MS4 Permit program requirements and will include:</p> <ul style="list-style-type: none"> • Permit Boundary determination • MS4 Permit requirements including information on regulatory authority • Construction General Permit requirements • Current CDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) – referred to in EPA Audit Report as “the Green Book” <p>This will be required training for anyone involved in any part of the MS4 Program, including environmental, engineering, and maintenance. It will also be available to others.</p>
<p>3PM – CDOT has not ensured training for staff on requirements of the MS4 permit and associated CDOT programs.</p> <p>Corrective Action: Ensure CDOT personnel receive adequate training and information to implement the MS4 Program. Submit a <u>roster</u> of who has received this program training, and describe how CDOT intends to <u>ensure MS4 employees receive training</u>.</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u></p> <p><u>Corrective Action:</u></p> <p>Completed: As discussed under 2PM for this submittal, the training program approach for the MS4 Program and Gap Analysis has been completed. Many of the trainings have now been updated and new ones created in response to the EPA Audit findings and for the requirements of the new 2015 MS4 Permit (Aug). Some of the notable trainings include the Transportation Erosion Control Supervisor Class, those addressing permanent water quality, and Pollution Prevention and Good Housekeeping at the maintenance facilities. All of these trainings are either tracked in CDOT’s Learning Management System (LMS) and/or by the training Lead for CDOT staff, or are tracked by spreadsheet for non-CDOT staff.</p>

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<p>Recommended Action: It is recommended that <u>safety</u> training be provided as part of any MS4 program training, if it is not already.</p>	<p>CDOT <u>intends to ensure MS4 employees receive training</u> through the tracking and accountability that is part of CDOT's LMS. When a training is identified for those employees, it will be tracked and their supervisor will be notified if they have not taken these trainings by a particular date. Records are kept regarding the <u>list of CDOT personnel receiving MS4 training</u> as required by CDOT's MS4 Permit. These records will be pulled from the LMS during the preparation of the MS4 annual report to identify any employees that still have outstanding training requirements. An escalation process will be initiated that will start with the employee's supervisor, up the chain until it gets to the Director of Stormwater Compliance. Additionally, Contractor staff requiring any of these trainings will not be allowed to work on CDOT's projects until they can prove they have taken and passed the required trainings.</p> <p>Completed: CDOT is providing a summary and rosters of most of the people trained between 2015 and present on the MS4 Programs in the MS4 Permit to this May 9, 2017 meeting.</p> <div data-bbox="753 875 1764 1133">  <p>150520-Roster Transportation Erosi</p> <p>MS4 Course Completions from N</p> <p>BMP Selection class 2015-Current.pdf</p> <p>2014-PEPI Summary Spreadsheet.xlsx</p> <p>2015-PEPI Classes-Presentations</p> <p>TCC 2017 Attendance Roster.pdf</p> <p>FRCP_SIS_All Regions_2015-Curre</p> </div> <p>Recommended Action:</p> <p>Completed: CDOT already provides regular <u>safety</u> training.</p> <p>Completed: See other various communication, trainings, and information as outlined in 2PM. Next steps for Formal CDOT MS4 Programmatic Training is addressed under 2PM.</p> <p>Additional Safeguards Being Added:</p>

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	<p>The Stormwater Management Plan (SWMP) Preparer class will be complete this month (May) that addresses how to design a better SWMP and includes both MS4 Permit and General Construction Permit requirements.</p> <p>The Stormwater Management Plan Reviewer class will be complete by September 2017 addressing how CDOT’s MS4 reviews and approves a SWMP to the MS4 Permit and General Construction Permit requirements.</p>
<p>4PM – The <u>Permit boundaries</u> were unclear to several CDOT personnel.</p> <p>Corrective Action: Review the Permit boundaries in which the MS4 requirements apply. <u>Provide adequate training</u> to ensure the MS4 Program is implemented within all Permit boundaries.</p> <p>Recommended Action: MS4 boundary within <u>OTIS</u> may also need to be updated to be in compliance with the Permit coverage area</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> Completed: The MS4 <u>permit boundaries</u> within CDOT’s Online Transportation Information System (<u>OTIS</u>) were already current at the time of the EPA Audit and in compliance with CDOT’s MS4 permit. This permit boundary has also been updated for the newly-issued MS4 permit (two layers showing the change/growth of the MS4 permit boundaries). MS4 Permit boundaries are reviewed and updated as necessary in <u>OTIS</u>. Since the EPA Audit, this boundary has been updated twice to reflect the boundary changes since our new MS4 Permit became effective (Aug 28, 2015). Our MS4 boundary changes as municipal boundaries change, as required by our new permit. CDOT will continue to update OTIS to reflect the most current MS4 boundaries. These updates occur annually in step with a planning process already in place. Other <u>trainings</u> regarding specific programs within the MS4 Permit will reference these MS4 permit boundaries as applicable, so that the <u>MS4 program is implemented</u> where it applies; this includes information that CDOT has presently elected to expand the implementation of the MS4 Construction Sites Program state-wide and not just within MS4 boundaries.</p>
<p><i>Illicit Discharge – ID</i></p>	

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<p>1ID – CDOT does not have adequate legal authority for illicit discharges, as required to have been submitted with CDOT’s permit application</p> <p>“1ID Permit Application Requirements: 40CFR 122.26(d)(2) requires large MS4s, such as CDOT, to include the following in its permit application: (i) Adequate legal authority. A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to:</p> <ul style="list-style-type: none"> (A) Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of stormwater discharged from sties of industrial activity; (B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer; (C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of material other than storm water; 	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> Completed: CDOT has adequate legal authority. Specifically, Part 2 of the National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water Permit Application for CDOT summarizes this legal authority: from various subsections from 40 Code of Federal Regulations 122.26, and from Colorado Revised Statutes, Title 43. Additionally, the State of Colorado has legal authority and CDOT, one of these state agencies, utilizes other state agencies, the Colorado Department of Public Health and Environment (CDPHE), Colorado State Patrol (CSP), and the District Attorney’s office when enforcement is necessary. This occurs on about 5-10% of ID investigations and has been very effective.</p> <p>2 CCR 601-18 State Highway Utility Accommodation Code defines what an illicit discharge (ID) is (2.3.1.11), establishes that the CDOT Water Quality Program Manager is responsible for managing the illicit discharge program (3.1.7.13.2), and CDPHE Water Quality Control Division has the capabilities to take enforcement actions against illicit discharges, among other Illicit Discharge-related clauses.</p> <p>From CDOT’s MS4 Illicit Discharge Program Description Document, it says that CDOT must implement a regulatory mechanism to meet MS4 Permit Illicit Discharges Program requirements (MS4 Permit, Part 1.E.3.a.ii.), including:</p> <p><i>Provide the permittee the legal ability to meet the permit requirements to remove, or require and ensure the removal of, and impose penalties for all illicit discharges for the period from when the illicit discharge is identified until removed.</i></p> <ul style="list-style-type: none"> a. When escalation to legal authority is needed, CDOT reports IDs to CDPHE, CSP and/or the District Attorney’s Office who have enforcement authority to fine or prosecute the violating entities, depending on the severity and

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<p>(D) Control through interagency agreements among co-applicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;</p> <p>(E) Require compliance with conditions in ordinances, permits, contracts or orders; and</p> <p>(F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.”</p> <p>Corrective Action: Submit to EPA and CDPHE a summary of why CDOT had adequate legal authority and individually address A-F in the permit application requirements above, or indicate how and when CDOT will obtain such adequate legal authority.</p>	<p>regularity of illicit discharges from their facilities. While rarely needed, CDOT has effectively used this enforcement action in the past.</p> <ul style="list-style-type: none"> i. “The CDOT Water Quality Program Manager [ID Manager] is responsible for managing the Illicit Discharge Program for [CDOT]. This person would have the primary role of submitting illicit discharges to the CDPHE.” (2 CCR 601-18, Section 3.1.7.13.2) ii. “The CDPHE Water Quality Control Division has the capabilities to take enforcement actions against illicit discharges.” (2 CCR 601-18, Section 3.1.7.13.4) <p>b. ID response outside of CDOT ROW is under the authority of the local municipality or county.</p> <p>CDOT submitted the following explanation to EPA on 12/11/2015:</p> <p>CDOT has adequate legal authority. Specifically, Part 2 of the National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water Permit Application for CDOT submitted to CDPHE in 1993 summarizes this legal authority and individually addresses A-F as quoted below:</p> <p>Title 43, "Highways and Roads". Section 43-1-210.5 of the Colorado Revised Statutes states that "The Department of Transportation controls the use of thousands of acres of right-of-way in Colorado for highway purposes". This includes state highways, which are defined in section 43- 1-204 as "a right-of-way on location, whether actually used as a highway or not, designated for the construction of a state highway upon it".</p> <p>(B), (C), (E), and (F) 40 CFR 122.26 (d)(2)(i): CDOT has the legal authority to control all activities taking place within CDOTs right-of-way (CRS 43-1-210.5). Access to CDOTs right-of-way is controlled and regulated through</p>

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	<p>access permits. CRS 43-2-147 describes the "Access to public highways". CDOT has no legal authority over land uses located outside CDOTs right-of-way; this authority lies with the municipality or county. In these cases, CDPHE is notified by CDOT for resolution in these matters.</p> <p>(A) 40 CFR 122.26 (d)(2)(i): Since CDOTs right-of-way is exclusively for highway purposes, stormwater discharges associated with industrial activities to the highway storm drains will be very limited and very unlikely; therefore this section is not applicable to CDOT. In regards to stormwater discharges associated with construction activities from developers, these are covered by paragraph 1 above. Finally, as far as the quality of stormwater discharged from sites of industrial activity: since the Colorado Department of Health is responsible for the control, permitting, and enforcement related to stormwater discharges associated with industrial activities, and since those stormwater discharges associated with industrial activities will not be generated within CDOTs right-of-way, no authority in this regard is needed.</p> <p>(D) 40 CFR 122.26 (d)(2)(i): This requirement does not apply since CDOT is applying as an individual and not as a co-applicant with any other municipality. If required however, CRS 43-1-110(4), 43-2-144, 43-4-102(1)(c), and 43-4-302 gives CDOT the authority to enter into inter-agency agreements.</p> <p><u>Additional Safeguards Added:</u> <u>Completed:</u> The Illicit Discharge training provides detection and identification of illicit discharges on CDOT Property. CDOT has voluntarily implemented the ID Program statewide.</p>

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<p><i>Construction Sites – CS</i></p>	
<p>1CS – The [208.09] Standard Specifications do not require <u>stop work orders</u> to be issued for discharges to state waters or other egregious non-compliance instances [because the word “may” instead of “<u>will</u>” is included in the language, and it does not require a <u>stop-work order for discharges to state waters or other egregious non-compliance instances</u>].</p> <p>Corrective Action: [Although] CDOT’s new MS4 Permit, issued in 2015, does not require a <u>stop work order</u> in specific instances, [EPA implied they would still like to see this stop-work order requirement implemented through specification changes.]</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> Completed: CDOT has issued the updated Standard Specifications for Road and Bridge Construction 208.09 (Failure to Perform Erosion Control) to change “may” to “<u>will</u>” and for Project Engineers (PEs) to issue stop <u>work orders</u> for discharges to state waters or other egregious non-compliance instances as discussed in this finding. These specification changes are reinforced by a Chief Engineer Memorandum, conveying the importance of their implementation as our MS4 Regulatory Authority. A CDOT Construction Bulletin was issued on March 29th, 2016, that incorporated these changes.</p> <p><u>Additional Safeguards:</u> CDOT recognizes that training on these changes is necessary to ensure proper implementation of these changes.</p> <ol style="list-style-type: none"> 1) Completed: <u>Training/Communication:</u> See 2PM for outreach list of contacts. 2) Completed: Transportation Erosion Control Supervisor (TECS) Certification – TECS is directed to the construction stormwater permit (CDPS-SCP) and contractor; therefore, not really involved in the MS4 Program requirements. However, since this was an EPA finding, we have added a section describing the 208.09 “Failure to Perform Erosion Control” regarding CDOT’s regulatory authority to the class. 3) Completed: The MS4 Construction Program Manual and subsequent Standard Operating Procedures (SOPs) were developed to monitor the 208.09 process on Monthly Audits, RECATs (C2), Monitoring events (M4), via ESCAN (M4) and also on 3rd party audits (M6) when the implementation plan requires.

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<p>2CS – CDOT failed to ensure compliance with the Construction General Permit, <u>enforce</u> according to the Standard Specifications [aka Green Book], and implement sanctions for <u>chronic failures</u> at design-bid (sic) projects. <u>[assuming Design-Build projects because this is the project inspected that generated this finding]</u></p> <p>Corrective Action: CDOT’s new MS4 Permit issued in 2015 no longer incorporates the <u>Construction General permit</u> by reference. Update and implement the Construction Sites Program to ensure CDOT requires contractors implement the requirements listed in CDOT’s new permit.</p> <p>Recommended Actions: CDOT develop an <u>alternative enforcement structure</u> that provides additional pathways to enforcement escalation including <u>oversight of Project Engineer</u> (PE) decisions by the Water Quality Control Manager and does not rely only on the PE.</p> <p>CDOT should evaluate its <u>design-build</u> process to determine why these projects tend to have more problems, and address the root cause(s).</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> Completed: CDOT addressed the EPA Finding of <u>enforcing</u> water quality specifications and has issued the updated Standard Specifications for Road and Bridge Construction, 208.09 (Failure to Perform Erosion Control) relating to CDOT’s regulatory Authority, more specifically subsection 105.01 the failure to implement the stipulations of issuing Liquidated damages and stop work orders as outlined in this subsection. Specification 208.09 states, “If all other failures are not corrected within 48 hours after liquidated damages have begun to be assessed, the Engineer <u>will</u> issue a Stop Work Order in accordance with subsection 105.01. Work shall not resume until the Engineer has approved a written corrective action plan submitted by the Contractor that includes measures to prevent future violations and a schedule for implementation.” This updated specification applies to all projects with advertisement dates on or after 4/21/2016 regardless of project type. This <u>alternative enforcement structure</u> now requires escalation which includes liquidated damages and stop work orders (previously this was optional but now it’s required). Additionally, the Standard Operating Procedure for oversight and monitoring (M4) holds the PEs on projects accountable for their roles in the MS4 Construction Program as outlined in the MS4 Construction [sites] Manual. <u>Sanctions for chronic failures</u> or non-compliance is addressed under 4CS. Completed: The MS4 Construction Sites Program was re-developed and documented in the MS4 Construction Program Manual and includes SOPs to address CDOT’s new (August 2015) MS4 Permit, the EPA Audit Findings, and the CDPS-SCP (the <u>Construction General Permit</u>) requirements. Completed: The <u>Design-Build</u> Process is being evaluated by CDOT’s on-going Innovative Contracting Advisory Committee (ICAC), Environmental Subcommittee that is addressing various environmental challenges in <u>Design-Build</u> projects. The subcommittee has revised the Contract Guidance for <u>Design-Build</u> projects to include</p>

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	<p>water quality and other environmental considerations. CDOT developed two <u>Design-Build</u> training modules for environmental compliance to train internal engineers regarding environmental risk of <u>Design-Build</u> projects. CDOT also participated in a national peer exchange led by FHWA regarding lessons learned for <u>Design-Build</u> projects during the week of September 19, 2016.</p> <p><u>Additional Safeguards Added:</u> <u>Completed:</u> MS4 Construction Program Manual implementation plan (IP) describes trainings needed for MS4 personnel (IP developed by 4/6/17)</p>
<p>3CS – CDOT failed to follow the Green Book [aka Standard Specifications] procedure for several construction sites across Regions by failing to issue and collect <u>liquidated damages</u> for corrective actions that went beyond 48 hours.</p> <p>Corrective Action: Follow the Green Book [208.09 Spec] procedure for construction sites by issuing and collecting <u>liquidated damages</u> for corrective actions that go beyond 48 hours. Indicate in a response how CDOT plans to ensure this is achieved.</p>	<p>Status 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> <u>Completed:</u> CDOT has issued the updated Standard Specification 208.09 (Failure to Perform Erosion Control) relating for Road and Bridge Construction which now <u>requires</u> the issuance of <u>liquidated damages</u> for corrective actions that are not addressed after 48 hours. Specification 208.09 is CDOT’s Regulatory Mechanism, including <u>liquidated damages</u>, to implement and enforce the MS4 Permit’s construction program requirements. The 208.09 Specification now states:</p> <p>“[f]ailure to implement the [SWMP] is a violation of the CDPS-SCP and CDOT Specifications. CDOT is obligated to implement enforcement mechanisms in accordance with CDOT’s MS4 Permit COS000005 for Stormwater Management and erosion control Best Management Practices [Control Measures]. Penalties may be assessed to the Contractor by the appropriate agencies. Penalties <u>will</u> be assessed by [CDOT] as <u>liquidated damages</u> for failure to meet the [CDPS-SCP] Permit. All fines assessed to [CDOT] for the Contractor’s failure to perform erosion control will be deducted from moneys due the Contractor in accordance with subsection 107.25(c) 2.”</p>

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	<p>This process is initiated when the Project Engineer issues a Form 105 (Speed Memo) notifying the Contractor of failure(s) to perform erosion control, as identified either by the project team, or during monthly or routine audit inspections by regional/HQ water quality staff. The electronic tracking construction inspection system, ESCAN, will be used to document all CDOT Form 105s associated with water quality, track the process of <u>liquidated damages</u>, and track Stop Work Orders issued in accordance with the 208.09 Specification including for discharges into state waters.</p> <p>A Chief Engineer’s Memo (also the Director of Stormwater Compliance) notified the Project Engineers that they are expected to follow this enforcement process of issuing <u>liquidated damages</u>. Additionally, the MS4 Construction Program Manual, Standard Operating Procedure C3, clearly describes adherence to this process, and it will be monitored by Region Water Pollution Control Manager on Monthly Audits, by the MS4 Construction Program Manager or the MS4 Construction Field Manager on RECATs (CDOT’s water quality audit process) (SOP C2), and by 3rd party audits (SOP M6) when the implementation plan requires. There is an escalation process described in SOP M4, MS4 Compliance Monitoring that escalates failure of the 208.09 process to management.</p> <p><u>Additional Safeguards Being Added:</u></p> <ul style="list-style-type: none"> • The stormwater inspection software, ESCAN, is being redeveloped to better monitor this process to assess <u>liquidated damages</u> and escalate non-compliance of this process to CDOT management. • MS4 Construction Program Manual implementation plan (IP) describes further trainings needed for MS4 personnel (IP developed by 4/6/17) and was developed by a Statewide Task Force of CDOT employees who work with Construction Sites.

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<p>4CS – CDOT has no formal mechanism to address <u>chronic noncompliance</u> by contractors as long as corrective actions occur within 48 hours.</p> <p>Corrective Action: Update the Green Book [208.09 spec] to include a process to address <u>chronic noncompliance</u> by contractors even if corrective actions are always completed within 48 hours. Ensure there is an infrastructure in place to track <u>chronic noncompliance</u> by contractors. Submit this update to EPA.</p>	<p>Status 85% Complete</p> <p><u>Actions:</u> Completed: The MS4 Construction Program Task Force defined chronic non-compliance, and recalcitrant/chronic offenders identified in our MS4 Permit. In the 3/1/17 standard operating procedures for the MS4 Construction Program, they defined <u>chronic Finding/Chronic Non-compliance</u> as a systematic problem in which there are continual and ongoing findings on the same issue or same project. They defined a <u>Recalcitrant Violator (a)</u> as someone who has an uncooperative or resistant attitude, instances of bad faith, willful negligence or misrepresentation or unwillingness to adhere to contract water quality standards, <u>or (b)</u> is unwilling to adhere to contract water quality standards or stubbornness to follow the contract with the intent of saving money/time by avoiding or failing to proactively implement Control Measures. A <u>Recalcitrant Violation</u> is an instance of noncompliance in which CDOT and the contractor agree upon the noncompliance finding and where the contractor does not provide corrective actions to the finding per 208.09 09 (Failure to Perform Erosion Control). Recommended disincentives were taken to the Water Quality Advisory Committee for discussion and was recommended to take this to CDOT’s Project Design Advisory Committee (PDAC). Completed: CDOT has issued the updated Standard Specifications for Road and Bridge Construction (See 1CS, 2CS, and 3CS for description of requiring stop work orders, alternative enforcement structure for non-compliance, and requiring assessment of liquidated damages). Completed: New MS4 Construction Program Manual has been developed standard operating procedures for escalating non-compliance in enforcement. Completed: The MS4 Construction Program Manual implementation plan (IP) describes further trainings needed for MS4 personnel (IP developed 4/6/17). <u>Next Steps:</u></p>

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	<p>Final approval for <u>chronic non-compliance</u> and <u>recalcitrant violator disincentives</u> to be adopted for changes in 208.09 specification is by CDOT's PDAC who is meeting in June 2017. Meanwhile, CDOT will watch for these conditions in the field and escalate when necessary.</p>
<p>5CS – Contractors' failures to meet Construction General Permit and Green Book requirements were not identified by CDOT inspectors and a contractor Transportation Erosion Control Supervisor inspector during <u>oversight inspections</u> at CDOT construction sites.</p> <p>Corrective Action: Ensure contractors, as well as CDOT, are in compliance with the Permit and the Standard Specifications. This includes ensuring the CDOT and TECS <u>inspectors are trained</u> on the requirements and <u>enforce those requirements</u>. Indicate in a response how CDOT intends to <u>ensure compliance</u>.</p>	<p>Status 100% Complete - No further action required on this finding.</p> <p><u>Clarification:</u> During the <u>oversight inspection</u>, CDOT personnel and contractors were instructed to provide support to EPA during the audit, but were not instructed to lead the inspection. This could account for the observations made regarding the personnel involvement that day.</p> <p><u>Actions:</u> Completed:</p> <ul style="list-style-type: none"> • The MS4 Construction Program Manual implementation plan (IP) describes further trainings needed for MS4 personnel (IP developed 4/6/17). Furthermore, new hire and annual trainings of Regional Water Pollution Control Managers will be required per the MS4 Construction Program Manual (Fall 2017). Additionally, the Transportation Erosion Control Supervisor (TECS) Certification was updated to focus on inspection requirements. • CDOT intends to <u>ensure compliance</u> on a construction site by issuing the updated Standard Specifications for Road and Bridge Construction 208.09 (Failure to Perform Erosion Control) and as described in responses to 1CS, 2CS, 3CS, and 4CS. <u>Enforcement of these requirements</u> will be achieved by requiring stop work orders, using the alternative enforcement structure for non-compliance, issuing liquidated damages, and using disincentives with chronic non-compliance violators. • Best Management Practices (BMP) selection class is already being offered and helps field practitioners choose the proper BMP for differing field situations. <p><u>Trainings</u></p>

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	<ul style="list-style-type: none"> • Transportation Erosion Control Supervisor (TECS) Certification – CDOT staff and the Contractor’s TECS <u>inspectors are trained</u> in this class, and through continuing education and information outreach as part of this certification program. The TECS class covers requirements of CDOT specifications as they relate to the application of the construction stormwater permit (CDPS-SCP) ensuring these contractors are trained to be in compliance on their construction site.
<i>New Development/Redevelopment – ND</i>	
<p>1ND – The inventory of CDOT Permanent Water Quality Facilities (PWQFs) was incomplete and inaccurate.</p> <p>Corrective Action: CDOT must maintain an accurate inventory of PWQFs in order to ensure long-term maintenance of them. Indicate in a response 1) <u>how</u> CDOT will update its inventory, 2) <u>describe</u> the platform for the inventory (e.g., OTIS, etc.) and 3) <u>indicate</u> how that inventory will be used <u>to ensure long-term maintenance</u>.</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>Actions:</u> Completed: In the December 11, 2015 response letter, CDOT submitted the plan as required to address this corrective action, and since then, CDOT is in the process of implementing that plan. The plans is that: 1) CDOT will update its Permanent Water Quality Facility (PWQF) inventory, 2) that inventory will be housed in SAP (CDOT’s centralized project tracking system) and the OTIS database (CDOTs version of a GIS database) will be used in support of the new MS4 Permit requirements, and that 3) the inventory/SAP will be used to track inspections and maintenance activities and associated costs to gather an estimate for accurate future budgeting <u>to ensure long-term PWQF maintenance</u>.</p> <p><u>Plan Implementation:</u></p> <p>a) The plan submitted to EPA in response to this Corrective Action is now being implemented and the plan will be included in the PWQ Program Description Documents that are due to be completed September 1, 2017 per CDOT’s new MS4 Permit Compliance Schedule. The PWQF Future Inventory Identification Process has been developed - Regions and HQ developed and implemented a procedure for adding new PWQFs to SAP and includes the Area Treated Geodatabase. These steps</p>

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	<p>were provided in the Nov 26, 2016 submittal to EPA as NDRD Attachment 4/Attachment A.</p> <p>b) The inventory has been updated in SAP and QA/QC performed and completed as part of the process review. Based on the process review it was determined that it would be helpful to track additional information. The additional information tracked is the reason the PWQF was installed (e.g., MS4, TMDL, NEPA), who is maintaining each PWQF, and when CDOT is not responsible for maintenance, the mechanism holding a local agency to maintain it (e.g., IGA or state statute only). There is a process for adding new project PWQFs to this inventory and there are several projects already identified that will be added shortly.</p> <p>c) Although inspections are not required more than once per 5-year permit term, CDOT will be conducting PWQF inspections over the next three years to identify the inspection and maintenance frequency needed the frequency for each specific PWQF.</p> <p><u>Additional Safeguards Being Added:</u></p> <p>Training:</p> <ul style="list-style-type: none"> • CDOT has developed and implemented an Interim Training that was done at the Maintenance Training Academy recently. It was for Transportation Maintenance Staff level 2 (supervisor), and discussed proper maintenance activity data entry in SAP. • In FY 18/19, PWQ Maintenance Certification Training will be developed; it covers inspection, maintenance and documentation of PWQ Control Measures, including: (1) Basic certification training to maintenance personnel that may encounter PWQ CMs or assist in maintaining PWQ and, (2) Advanced certification for maintenance personnel responsible for maintaining inventory. • Informal trainings will continue for maintenance personnel on proper SAP data entry.

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<p>2ND – CDOT does not have a complete list of PWQFs with <u>intergovernmental agreements</u> (IGAs) and is not ensuring long-term maintenance or proper operation and maintenance of PWQFs with IGAs.</p> <p>Corrective Action: <u>Develop a procedure</u> to ensure long-term maintenance is performed on CDOT’s PWQFs and that they are operating properly, including those that are covered under IGAs or other similar agreements with external entities. <u>Provide a procedure</u> to the EPA and CDPHE describing CDOT PWQFs maintained by Local Municipalities:</p> <p>1) How CDOT will keep this IGA-covered <u>inventory accurate</u>, 2) How CDOT will <u>transmit info</u> from routine inspections of PWQFs to the local municipality, and 3) How CDOT will verify the maintenance needs identified are accomplished.</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p>The inventory of all of CDOT’s Permanent Water Quality Facilities (PWQF), including those being maintained by Local Agencies with <u>intergovernmental agreements</u> (IGAs) or other regulatory mechanisms, have been identified and included in SAP. To address this finding CDOT developed a complete and separate list identifying and detailing which regulatory mechanism applies to each PWQF This updated list will ensure better organization for maintenance activities now and in the future.</p> <p>The procedure CDOT developed is as follows:</p> <ol style="list-style-type: none"> 1) <u>The procedure</u> to keep IGA-covered PWQF and other PWQFs <u>inventory accurate</u>, is the annual checks and balance conducted with the development of the MS4 Permit Annual Report. All new facilities are discussed in the annual report. This acts as the reminder to ensure cross check the new PWQFs reported in the Annual Report have also been properly updated in SAP. The MS4 PWQ Program Manager will check SAP to make sure all PWQF are uploaded into SAP at this time. 2) <u>The procedure on</u> how CDOT will <u>transmit information</u> from routine CDOT PWQF inspections to the local municipality responsible for maintaining the PWQFs is that CDOT will annually communicate, via letter or email to these entities, a request for maintenance actions on these facilities. 3) <u>The procedure for</u> how CDOT will verify routine inspection identified maintenance needs are accomplished is that CDOT will request the external entities maintenance records verifying that maintenance was completed. CDOT may also choose to do a drive-by check to verify maintenance was completed. <p>The 2ND finding also mentions concern about CDOT having a procedure to ensure long-term maintenance on CDOT’s PWQF so that they are operating properly. As mentioned under 1ND, these PWQFs will be inspected on an annual basis for at least the next 3</p>

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	<p>years, to identify proper maintenance frequency and to ensure that they are operating properly. Tracking resources used in the next several years for PWQF maintained by CDOT will allow a fairly accurate ability to anticipate future needs so CDOT can plan accordingly.</p> <p>Additionally, CDOT will evaluate the current procedures surrounding IGAs, including the review of IGA language for level of maintenance requirements, and the procedures for communicating inspection and maintenance requirements to the local agency. As long as these PWQF are being properly maintained, these <u>IGAs or other similar agreements</u> will not require revision. However, if maintenance becomes an issue with these PWQFs maintained by external entities, CDOT can identify where the IGA needs to be modified or reinforced to ensure long-term maintenance is performed and PWQFs are operating properly. CDOT management will work with our local partners to ensure IGAs or other agreements are in place before a construction project goes out for advertisement. These procedures will be captured in the PWQ Program Description Document (PDD) and associated Standard Operating Procedures and other process documents. This PDD must be completed by the Sept. 1, 2017 MS4 permit compliance schedule.</p> <p><u>Additional Safeguards Being Added:</u> See response for 1ND - Additional Safeguards</p>
<p>3ND – CDOT was not ensuring long-term maintenance of PWQFs.</p> <p>Corrective Action: Develop a <u>procedure</u> to ensure that maintenance is performed on CDOT’s PWQFs and that they are operating properly, including those covered under an IGA</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p>The <u>procedure</u> to ensure that maintenance is performed on CDOT’s PWQFs and that they are operating properly includes inspections over the next 3 years or so, to identify the proper maintenance frequency needed at each PWQF. There will also be an independent “compliance” inspection evaluation once per permit term. Following an inspection, if maintenance is required, a work order will be put into SAP that can be</p>

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<p>or other similar agreements with external entities. Provide a <u>procedure</u> to the EPA and CDPHE describing how CDOT will ensure long-term maintenance will be accomplished as well as a <u>timeframe</u> for implementing and completing all currently needed maintenance.</p>	<p>tracked regarding maintenance response. Putting work orders into SAP will help refine the needed budget for future annual maintenance by tracking actual expenditures required for the PWQF maintenance in that year. Staff revised the CDOT PWQF Inspection Form and conducted test inspections in order to ensure these new procedures are adequate to help standardize how these facilities are evaluated. PWQF Maintenance training will be developed for CDOT specific situations, but in the meantime, a similar PWQF Maintenance training can be attended by CDOT staff or contractors at the local college.</p> <p>The <u>timeline</u> for implementing and completing all currently needed maintenance is directed by our new MS4 Permit. Within 6 months following an inspection, any required maintenance identified should be completed. If the permittee is unable to modify or replace the inadequate control measure within 6 months then the permittee must develop a plan, and an interim plan, to ensure that it does not fail in the meantime. CDOT's plan is to conduct a diagnostic inspection over the next three years (by the end of the MS4 Permit term) of all of the PWQF and conduct any needed maintenance.</p> <p>These procedures will be captured in the PWQ Program Description Document (PDD) and associated Standard Operating Procedures and other process documents. This PDD must be completed by the Sept. 1, 2017 MS4 permit compliance schedule.</p> <p><u>Additional Safeguards Being Added:</u></p> <ul style="list-style-type: none"> • PWQ Maintenance Training Certification will be developed - (See 1 ND for description) but in the meantime, a similar PWQF Maintenance training can be attended by CDOT staff or contractors at the local college. • PWQ Drainage Design Review Certification - Covers proper design and design review for PWQ Facilities (PWQF) to ensure PWQFs meet CDOT MS4 permit and Design Standards. The PWQ Certification development will begin in FY 2018. Implementation would be later in FY 2018 or early FY 2019. Meanwhile, a local



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	<p>college has similar PWQ Maintenance training that will be a helpful stop-gap until this specific CDOT training can be developed.</p>
<p>4ND – There is a lack of funding for long-term maintenance of CDOT’s PWQFs.</p> <p>Corrective Action: <u>Allocate adequate funding to the regional offices in order to ensure long-term maintenance of PWQFs.</u></p> <p>Additional Information Requested: For each region, provide EPA and CDPHE with the following:</p> <ol style="list-style-type: none"> 1) How much funding is allocated for PWQF maintenance in R1? 2) Why is funding similar in R2 and R4 when the PWQF are so much more in R2? 3) In R3, how can CDOT ensure PWQF are maintained by local agencies when no IGA is in place? 4) In R5, how are all 19 PWQF maintenance ensured with only 1 IGA in place and no maintenance funding provided to the region? 5) What additional resources are needed to provide long-term maintenance of PWQF? Include a dollar amount and 	<p>Status: 80% Complete</p> <p><u>Actions:</u></p> <p><u>Additional Information Requested:</u></p> <p>Completed:</p> <p>Additional Information Requests responses are proved in the imbedded attachment; here is a summary of what is provided: 1&2&5 responses were provided for all past financial information requested, but it was pointed out that CDOT does not track maintenance of PWQF separately, and with the inventory still needing updating, the information was likely inaccurate and underestimated the cost for the information that was tracked. This will be addressed and provided along with the resource assessment (see 1PM response). When this tracking is more accurate, it will help refine the budget requests for future maintenance needs.</p> <p>3) Information was provided on how R3 works with local agencies regarding maintenance responsibilities.</p> <p>4) All 19 PWQF are covered under the one IGA.</p> <p>The attached is the text and tables included in the Dec 11, 2015 response.</p> <div data-bbox="827 1101 886 1166" data-label="Image"> </div> <p>4ND Response Dec 11 2015.docx</p> <p><u>Corrective Action:</u></p> <ul style="list-style-type: none"> • PWQF Maintenance Cost Estimating – Staff have developed a cost estimate tool to be used to estimate PWQF maintenance and inspection costs by PWQF type. This tool is being applied to region PWQF maintenance for estimating resources that may be needed, depending on what can be covered by current budgets. CDOT has setup a

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<p>indicate how much would need to be allocated to equipment, FTEs, etc.</p>	<p>preliminary process in SAP which allows Region staff to attach inspections and generate work orders from those inspections. This will allow CDOT to track maintenance costs of PWQFs, both by structure and inspection report, and improve the ability to accurately estimate future maintenance funding needs.</p> <p><u>Next Steps:</u></p> <ul style="list-style-type: none"> • Determine the level of resources needed to implement the MS4 Program including PWQF maintenance and inspection work, and compare with existing resources available in CDOT environmental and maintenance for conducting PWQF maintenance and inspection work, along with the Resource Assessment from 1PM regarding the rest of the MS4 Program resource assessment. • Identify gaps between existing resources and needed resources. • Identify strategies with executive management to address the gaps in resource needs. • Finalize the Resource Assessment for PWQ maintenance, for the rest of the MS4 Programs and take appropriate action to acquire any needed resources above and beyond current budgets and assets. For additional financial resources needed, submit the request in the next budgetary cycle to the Transportation Commission. See 1PM for details.
<p>EPA's Appendix B NDRD Inspection and Maintenance Summary Table [for 5 regions]</p> <p>[EPA inspected or reviewed records for 30 PWQFs; CDOT was to address the findings summarized in this Appendix B table.]</p>	<p>Status: 100% Complete</p> <p><u>Actions:</u> Completed</p> <ul style="list-style-type: none"> • All PWQFs findings noted by the EPA have been addressed and any required maintenance completed. <p>See attached PWQF Table for response/status of all 30 PWQF identified.</p>

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	 Attach 4B_PWQF Inspec and Maint.xls
<p><i>Pollution Prevention - PP</i></p>	
<p>1PP – CDOT maintenance facilities were not fully implementing facility runoff control plans (FRCPs), updating or amending FRCPs, and FRCPs did not address all required items.</p> <p>Corrective Action: Implement the FRCP program. Evaluate each of the maintenance facilities listed in the report and provide EPA and CDPHE a numbered summary of actions performed to address each of the <u>18 corresponding numbered failures</u> of CDOT to fully implement FRCPS, update or amend the FRCPs, and address all required items in the RECPs.</p>	<p>Status: 100% Completed - No further action required on this finding.</p> <p>The FRCP was being properly implemented, and amended/updated, because findings were corrected when identified, and guidance and procedures were modified in an adaptive management approach when issues came up that were not anticipated. Oversight by HQ, and monthly inspections by the maintenance crews were being completed as required by the FRCP.</p> <p>Regarding the <u>18 corresponding findings</u>, CDOT either addressed these immediately in the field or otherwise responded to EPA in a previous submittal. The issues and responses are included in the attached table.</p>  EPA Audit_FRCP18_Findi <p>To clarify the previous response to #6. The “pile of Mag Chloride” comment was not Mag Chloride. The material in the pile, however, was excavated and disposed of properly so it no longer exists. In addition, this facility located at 18500 E Colfax is being redesigned with all new drainage-ways and new buildings. Construction for this facility started in 2016 and will be completed in late 2017. There will be no underground drains in this facility. All stormwater runoff will be conveyed to a detention pond in the southwest corner of the facility. Once the construction is complete, a new Facility</p>

**Table 1: Summary of EPA Finding/Recommendations –
Current CDOT Actions Status**

<p align="center">EPA Finding Number (Field Visit March 30 – April 2, 2015) (EPA Finding Report: Sept 30 2015 initial draft, Nov 5, 2015 revised)</p>	<p align="center">CDOT Actions Completed May 9, 2017</p>
	<p>Runoff Control Plan (FRCP) will be developed and additional FRCP training will be conducted for all maintenance personnel on site.</p> <p><u>Additional Safeguards:</u> <u>Completed:</u> As stated in a previous submittal, FRCP Training has been revised and is being implemented both formally, and in an on-going basis as requested or during inspections.</p>
<p>2PP – The 18500 East Colfax Avenue maintenance facility did not have the most recent updated FRCP on-site.</p> <p>Corrective Action: <u>Ensure facilities</u> have the most recent updated FRCP on-site, and ensure the facilities receive updated copies. Provide the EPA and CDPHE with a response indicating how CDOT will ensure this occurs in the future.</p>	<p>Status: 100% Completed - No further action required on this finding.</p> <p>The facility binder dated June 2014 was on site and was supplied to EPA later during the inspection. The FRCP that EPA is referring to was an old FRCP which was also stored on site. During the Annual FRCP audit (May 27, 2015), all documents were on site and up-to-date. This binder is now located at the entrance to the main facility building hallway. This allows access to all facility personnel. All site personnel that are involved and/or responsible for different areas of the FRCP will be trained. FRCP Training has been revised and is being implemented. Since the EPA Audit, CDOT followed through to make sure current FRCP binders are in all CDOT maintenance facilities in MS4 Areas.</p>
<p>3PP – Potential non-allowable stormwater discharges have occurred at maintenance facilities in Region 2.</p> <p>Corrective Action: <u>Ensure non-allowable stormwater discharges do not occur.</u> Evaluate of each of the potential non-allowable stormwater discharges [listed below] and provide EPA and</p>	<p>Status: 100% Complete - No further action required on this finding.</p> <p><u>For the Corrective Action:</u> <u>Completed #1 & 2:</u> CDOT evaluated each of drain issues with the dye test requested in the Additional Information Request below. <u>No non-allowable stormwater discharges were occurring</u> at this maintenance facility in Region 2.</p>

**Table 1: Summary of EPA Finding/Recommendations –
Current CDOT Actions Status**

<p align="center">EPA Finding Number (Field Visit March 30 – April 2, 2015) (EPA Finding Report: Sept 30 2015 initial draft, Nov 5, 2015 revised)</p>	<p align="center">CDOT Actions Completed May 9, 2017</p>
<p>CDPHE a numbered summary of/ actions corresponding to <u>each of the 4</u> numbered discharges to ensure each of these do not occur in the future.</p> <p>Location: Maintenance Yard at 905 Erie, Pueblo</p> <ol style="list-style-type: none"> 1. Demonstrate where the floor drains and oil/water separator in the main shop building discharge. 2. Demonstrate where the floor drains and oil/water separator in the paint booth building discharge. 3. Hoses outside have been used to wash down the sidewalk or windows that could flow to drains leading to Fountain Creek. <p>Location: Maintenance Facility located in Canon City</p> <ol style="list-style-type: none"> 4. A retention pond on the north side of the yard collects stormwater. In addition to collecting stormwater, the pond is utilized for disposal of solids that are removed from the interceptor for the wash pad once a year. It appeared the pond had almost overflowed recently as indicated by a high staining mark. This could have resulted in a non-allowable stormwater discharge. <p>Additional Information Requested: Provide the EPA and CDPHE with plumbing diagrams for the 905 Erie year showing the destination of the</p>	<p>Completed #3: Facility personnel stated during the inspection that janitorial staff use the hose near the office building to rinse off the indoor/outdoor carpets and clean windows. These practices were discontinued immediately after the EPA inspection, and the staff was educated regarding why this was not allowed, as per the proper implementation of the FRCP.</p> <p>Completed #4: CDOT has implemented a berm along the fence line and along the south side of the pond as a control measure to prevent the possibility of water discharging from the facility. All area facilities, buildings and/or wash pad/bay interceptors are now arranged to be cleaned out by Safety Clean (a private contractor) and disposed of off-site.</p> <p><u>For the Additional Information Requested:</u> Completed (results apply to #1 and #2 above as well): A dye test was completed on CDOT's 905 Erie Facility on February 17, 2016 on the sand/oil interceptor on the north side of the main building and for the floor drain inside of the paint booth building at the facility. Also surveyed were the storm inlets and where they meet the outfall interceptor north of the Creekside Building. This dye test result was submitted to EPA April 11, 2016 and satisfies this finding; it showed no discharges were occurring at this maintenance facility in Region 2.</p>

**Table 1: Summary of EPA Finding/Recommendations –
Current CDOT Actions Status**

EPA Finding Number (Field Visit March 30 – April 2, 2015) (EPA Finding Report: Sept 30 2015 initial draft, Nov 5, 2015 revised)	CDOT Actions Completed May 9, 2017
<p>sand/oil interceptor on the north side of the main building and the drain inside the paint booth building. If no diagram is available, CDOT may need to dye test these drains and collect any dye with a vacuum truck if it discharges through the storm sewer pipes.</p>	